I: Plan Check Guides and Inspection Checklists

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-1: CERTIFICATE OF COMPLIANCE(part 1 of 2)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
GENERAL		
	DATE: Verify version of Energy Efficiency Standards that apply	2.1.1 Table 1-1
GENERAL INFORMATION		
	BUILDING CONDITIONED FLOOR AREA	2.1.2 3.3.1A
	CLIMATE ZONE	APPENDIX C 3.3.1A
	BUILDING TYPE: Verify Occupancy Group(s) and if Residential determine whether NonRes or Res Standards apply.	2.1.1A 2.1.2B 3.3.1A
	PHASE OF CONSTRUCTION	
	NEW CONSTRUCTION	2.2.2 3.3.1A
	ADDITION	2.2.5 3.3.1A
	ALTERATION	2.2.4 3.3.1A
	UNCONDITIONED	2.2.1 3.3.1A
	METHOD OF ENVELOPE COMPLIANCE	
	COMPONENT	3.2.2 3.1.1A
	OVERALL ENVELOPE	3.2.3 3.1.1A
	PERFORMANCE	3.2.4 3.1.1B 3.3.1A
STATEMENT OF COMPLIANCE		
	CIVIL ENGINEER, MECHANICAL ENGINEER, ELECTRICAL ENGINEER, OR ARCHITECT.	3.3.1
	CONTRACTOR DESIGNING WORK CONTRACTED TO PERFORM	
	OTHERWISE EXEMPT: APPLICANT TO STATE REASON FOR EXEMPTION	
ENVELOPE MANDATORY MEASURES		
	INDICATE LOCATION ON PLANS OF NOTE BLOCK FOR MANDATORY MEASURES.	3.2.1 3.3.1A
	DOORS, WINDOWS, SKYLIGHT	3.2.1A 3.3.1A
	JOINTS AND OPENINGS	3.2.1B 3.3.1A
	INSULATION MATERIALS	3.2.1C 3.3.1A
	DEMISING WALL INSULATION	3.2.1D 3.3.1A

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-1: CERTIFICATE OF COMPLIANCE(part 2 of 2)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OPAQUE SURFACES		
	SURFACE TYPE (Name to match Opaque Surfaces on attached forms)	3.3.1B
	CONSTRUCTION TYPE	3.3.1B
	LOCATION/COMMENTS	3.3.1B
	AREA	3.3.1B
	U-VAL	3.3.1B
	AZM	3.3.1B
	TILT	3.3.1B
	SOLAR GAINS	3.3.1B
	FORM 3 REFERENCE	3.3.1B
	LOCATION/COMMENTS	3.3.1B
FENESTRATION SURFACES		
	COMPONENT (Name to match Windows on attached forms. See definition of SLOPE in Section 3.1.2A	3.1.2B
	FRAME TYPE	3.1.2B
	EXTERIOR SHADE?	3.1.2B
	OVERHANG CREDIT	3.1.2B
	GLAZING TYPE	3.1.2B
EXTERIOR SHADING		
	FENESTRATION #	3.3.1B
	EXTERIOR TYPE	3.3.1B
	SHGC	3.3.1B
	WINDOWS	3.3.1B
	Hgt.	3.3.1B
	Width	3.3.1B
	OVERHANG	3.3.1B
	Len.	3.3.1B
	Hgt.	3.3.1B
	LExt.	3.3.1B
	RExt	3.3.1B
	LEFT FIN	3.3.1B
	Dist.	3.3.1B

FORM ENV-1: CERTIFICATE OF COMPLIANCE(PART 2 OF 2) (CONT.)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
	Len.	3.3.1B
	Hgt.	3.3.1B
	RIGHT FIN	3.3.1B
	Dist.	3.3.1B
	Len.	3.3.1B
	Hgt.	3.3.1B
	NOTES TO FIELD	3.3.1B

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: ENVELOPE COMPONENT METHOD

Note: There are two (2) methods of prescriptive compliance for the envelope requirements; the Envelope Component Method and the Overall Envelope Method. For a brief description of each of these methods refer to Section 3.1.1 A. Understanding of the "Surface Definitions" is necessary to proceed with plan checking; Refer to Section 3.1.2 A.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
WINDOW AREA CALCULATION SKYLIGHT AREA CALCULATION		
	GROSS WALL AREA(GWA) (Note: The sum of the window area, door area, and exterior wall area.)	3.1.2A 3.3.2A
	DISPLAY PERIMETER(DP)(See Definition Display Perimeter)	3.3.2A
	MAXIMUM ALLOWABLE WINDOW AREA	3.2.2E 3.3.2A
	PROPOSED WINDOW AREA(See Definition Window Area)	3.1.2A 3.3.2A
	ATRIUM HEIGHT(See Definition Atrium)	3.1.2A 3.2.2F 3.3.2B
	Allowed %	3.2.2F 3.3.2B
	GR. ROOF AREA(See Definition Gross Exterior Roof Area) (Note: The sum of the Skylight area and the exterior roof/ceiling)	3.1.2A 3.3.2B
	ALLOW. SKY. AREA	3.2.2F 3.3.2B
	ACTUAL SKY. AREA(See Definition Skylight)	3.1.2A 3.3.2B
OPAQUE SURFACES		
	ASSEMBLY NAME	ENV-1 3.3.4A 3.3.6A 3.3.2C
	TYPE	3.2.2A 3.3.3B 3.2.2C 3.2.2D
	HEAT CAPACITY > or =7.0	3.2.2B APP A:FORM ENV-3 3.2.2C
	INSULATION R-VALUE	
	WALL, FLOOR, SOFFIT WITH HC <7.0 AND ALL ROOF/CEILING	3.2.2A 3.2.2B 3.2.2C 3.2.2D
	PROPOSED(See Definition Insulation R-Value)	
	MIN. ALLOWED	
	Nonresidential Buildings	Standards Table 1-H
	High-rise Residential Bldgs and Guest Rms of Hotel/Motel Bldgs.	Standards Table 1-I
	ASSEMBLY U-VALUE	
	PROPOSED	APPENDIX A:FORM ENV-3
	WOOD FRAME	3.1.2D
	METAL FRAME	3.1.2E
	MASONRY	3.1.2F
	TABLE VALUES? (if no, form ENV-3 is required)	APPENDIX B

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: ENVELOPE COMPONENT METHOD

Note: There are two (2) methods of prescriptive compliance for the envelope requirements; the Envelope Component Method and the Overall Envelope Method. For a brief description of each of these methods refer to Section 3.1.1 A. Understanding of the "Surface Definitions" is necessary to proceed with plan checking; Refer to Section 3.1.2 A.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OPAQUE SURFACES		
	MAX ALLOWED	
	Nonresidential Buildings	Standards Table 1-H
	High-rise Residential Bldgs and Guest Rms of Hotel/Motel Bldgs.	Standards Table 1-I

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: ENVELOPE COMPONENT METHOD

Note: There are two (2) methods of prescriptive compliance for the envelope requirements; the Envelope Component Method and the Overall Envelope Method. For a brief description of each of these methods refer to Section 3.1.1 A. Understanding of the "Surface Definitions" is necessary to proceed with plan checking; Refer to Section 3.1.2 A.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
WINDOWS		
	WINDOW NAME From ENV-1	
	ORIENTATION See Definition Orientation	3.1.2A 3.3.2D
	U-VALUE	3.1.2H 3.3.2D
	PROPOSED (RSHG)	3.2.2E 3.3.2D
	ALLOWED RSHG	3.2.2E 3.3.2D
	# OF PANES	3.3.2D
	OVERHANG	3.1.2J 3.3.2D
	PROPOSED RSHG	3.1.2J 3.3.2D
	Nonresidential Buildings	Standards Table 1-H
	High-rise Residential Bldgs and Guest Rooms of Hotel/Motel Bldgs.	Standards Table 1-I
	ALLOW. RSHG	3.3.2d
SKYLIGHTS		
	SKYLIGHT NAME From ENV-1	
	GLAZING	3.2.2F 3.3.2E
	Translucent	Table 3-20 3.3.2E
	Transparent	Table 3-20 3.3.2E
	NO. OF PANES	3.3.2E 3.3.2e
	U-VALUE	3.1.2H 3.3.2E
	PROPOSED	3.1.2H 3.3.2E
	ALLOWED	3.2.2F 3.3.2E
	Nonresidential Buildings	Standards Table 1-H
	High-rise Residential Bldgs and Guest Rooms of Hotel/Motel Bldgs.	Standards Table 1-I
	SOLAR HEAT GAIN COEFFICIENT	3.3.2E
	PROPOSED	3.1.2J 3.3.2E
	ALLOWED	3.3.2E
	Nonresidential Buildings	Standards Table 1-H

FORM ENV-2: ENVELOPE COMPONENT METHOD(CONT.)

Note: There are two (2) methods of prescriptive compliance for the envelope requirements; the Envelope Component Method and the Overall Envelope Method. For a brief description of each of these methods refer to Section 3.1.1 A. Understanding of the "Surface Definitions" is necessary to proceed with plan checking; Refer to Section 3.1.2 A.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
SKYLIGHTS		
	High-rise Residential Bldgs and Guest Rooms of Hotel/Motel Bldgs.	Standards Table 1-I

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 1 OF 5

Note: There are two (2) methods of prescriptive compliance for the envelope requirements; the Envelope Component Method and the Overall Envelope Method. For a brief description of each of these methods refer to Section 3.1.1 A. Understanding of the "Surface Definitions" is necessary to proceed with plan checking; Refer to Section 3.1.2 A.

This calculation is performed to determine if a Window Adjustment Factor or Skylight Adjustment Factor is necessary. If they are found not to be necessary Part 4 of 5 will not be submitted.

Test: If the proposed window area is greater than the larger of the Display Perimeter or 40% of the GROSS exterior wall area:

WINDOW ADJUSTMENT FACTOR = MAXIMUM AREA / PROPOSED AREA

Test: If the proposed window area is less than 10% of the GROSS exterior wall area:

WINDOW ADJUSTMENT FACTOR = MINIMUM AREA / PROPOSED AREA

Test: If the proposed skylight area is greater than the allowed skylight area:

SKYLIGHT ADJUSTMENT FACTOR = ALLOWED SKYLIGHT AREA / PROPOSED

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
WINDOW AREA TEST		
	DISPLAY PERIMETER (DP) See Definition Display Perimeter.	3.1.2A 3.3.3A
	GROSS EXTERIOR WALL AREA See Definition Gross Exterior Wall Area (Note: The sum of the window area, door area, exterior wall area, and roof / ceiling area)	3.1.2A 3.3.3A
	PROPOSED WINDOW AREA	3.3.3A
SKYLIGHT AREA TEST		
	ATRIUM HEIGHT See Definition Atrium	3.1.2A
	STANDARD %	3.3.3A
	GROSS ROOF AREA See definition Gross Exterior Roof Area. (Note: The sum of Skylight and Roof / Ceiling Area.)	3.1.2A 3.3.3A
	STANDARD SKYLIGHT AREA	3.3.3A
	PROPOSED SKYLIGHT AREA	3.3.3A

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 2 OF 5

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OVERALL HEAT LOSS		
	WALLS	
	PROPOSED ASSEMBLY NAME	From ENV-1 3.3.3B
	PROPOSED AREA See definition Exterior Wall Area(Area of opaque exterior surface of exterior walls. Does not include windows or doors.)	3.1.2A 3.3.3B
	PROPOSED HEAT CAPACITY	3.3.3B 3.1.2H
	PROPOSED U-VALUE	3..1.2C FORM ENV-3 3.3.3B
	WOOD FRAME	3.1.2D 3.3.3B
	METAL FRAME	3.1.2E 3.3.3B
	MASONRY	3.1.2F 3.3.3B
	TABLE VALUES	3.3.3B
	PROPOSED UA	3.2.3A 3.3.3B
	STANDARD AREA (ADJUSTED) If window Adjustment Factor is required from column G, Part 5 of 5.	3.1.2A 3.2.3A 3.3.3B
	STANDARD U-VALUE: Nonresidential Buildings	Standards Table 1-H
	STANDARD U-VALUE: High-rise Residential Bldgs and Guest rooms of Hotel / Motel Bldgs.	Standards Table 1-I
	STANDARD UA	3.2.3B 3.3.3B
	ROOFS / CEILINGS	
	PROPOSED ASSEMBLY NAME	From ENV-1 3.3.3B
	AREA: See definition Exterior Roof / Ceiling. Note: Area of opaque exterior surface of the roof / ceiling. Does not include skylights or doors.	3.1.2A 3.3.3B
	PROPOSED HEAT CAPACITY	3.3.3B 3.1.2H
	PROPOSED U-VALUE	3.1.2A Form ENV-3 3.3.3B
	WOOD FRAME	3.1.2D
	METAL FRAME	3.1.2E
	MASONRY	3.1.2F
	TABLE VALUES	3.3.3B

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 2 OF 5(cont.)

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OVERALL HEAT LOSS		
	ROOFS / CEILINGS	
	PROPOSED UA	3.1.2A 3.3.3B
	STANDARD AREA (ADJUSTED) If Skylight Adjustment Factor is required from Column G.	3.1.2A 3.2.3A 3.3.3B
	STANDARD U-VALUE: Nonresidential Buildings	Standards Table 1-H 3.3.3B
	STANDARD U-VALUE: High-rise Residential Bldgs and Guest Rooms of Hotel / Motel Bldgs.	Standards Table 1-I 3.3.3B
	STANDARD UA	3.2.3A 3.3.3B
	FLOORS / SOFFITS	
	PROPOSED ASSEMBLY NAME	From ENV-1 3.3.3B
	AREA: See definition Exterior Roof / Ceiling. Note: Area of opaque exterior surface of the roof / ceiling. Does not include skylights or doors.	3.3.3B
	PROPOSED HEAT CAPACITY	3.3.3B 3.1.2H
	PROPOSED U-VALUE	3.1.2C 3.3.3B FORM ENV-3
	WOOD FRAME	3.1.2D
	METAL FRAME	3.1.2E
	MASONRY	3.1.2F
	TABLE VALUES	3.3.3B
	PROPOSED UA	3.2.3A 3.3.3B
	STANDARD AREA (ADJUSTED)	3.3.3B
	STANDARD U-VALUE: Nonresidential Buildings	Standards Table 1-H 3.3.3B
	STANDARD U-VALUE: High-rise Residential Bldgs and Guest Rooms of Hotel / Motel Bldgs.	Standards Table 1-I 3.3.3B
	STANDARD UA	3.2.3A 3.3.3B
	WINDOWS	
	PROPOSED ASSEMBLY NAME	From ENV-1 3.3.3B
	# OF PANES	3.3.3B
	AREA: See definition Window Area	3.3.3B
	PROPOSED HEAT CAPACITY	3.3.3B 3.1.2H

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 2 OF 5(cont.)

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OVERALL HEAT LOSS		
	WINDOWS	
	PROPOSED U-VALUE	3.1.2C 3.3.3B
	NON-METAL FRAME	
	METAL FRAME	
	TABLE VALUES	3.3.3B
	PROPOSED UA	3.2.3A 3.3.3B
	STANDARD AREA (ADJUSTED)	3.1.2A 3.3.3B
	STANDARD U-VALUE: Nonresidential Buildings	Standards Table 1-H
	STANDARD U-VALUE: High-rise Residential Bldgs and Guest Rooms of Hotel / Motel Bldgs.	Standards Table 1-I 3.3.3B 3.3.3B
	STANDARD UA	3.3.3B
	SKYLIGHTS	
	PROPOSED ASSEMBLY NAME	From ENV-1 3.3.3B
	# OF PANES	3.3.3B
	AREA: See definition Skylight Area	3.3.3B
	PROPOSED HEAT CAPACITY	3.3.3B 3.1.2H
	PROPOSED U-VALUE	3.1.2C 3.3.3B
	NON-METAL FRAME	
	METAL FRAME	
	TABLE VALUES	3.3.3B
	PROPOSED UA	3.2.3A 3.3.3B
	STANDARD AREA (ADJUSTED)	3.1.2A 3.3.3B
	STANDARD U-VALUE: Nonresidential Buildings	Standards Table 1-H
	STANDARD U-VALUE: High-rise Residential Bldgs and Guest Rooms of Hotel / Motel Bldgs.	Standards Table 1-I 3.3.3B 3.3.3B
	STANDARD UA	3.3.3B

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 3 OF 5

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OVERALL HEAT GAIN FROM CONDUCTION		
	WALLS	
	ASSEMBLY NAME	3.3.3C
	PROPOSED AREA	3.3.3C
	PROPOSED TEMP-FACTOR	3.3.3C Table 3-22 Standards Table 1-J
	PROPOSED HEAT CAPACITY	3.3.3C 3.1.2H
	PROPOSED U-VALUE	3.3.3C Appendix B
	TABLE VALUES?	3.3.3C Table B-7
	PROPOSED HEAT GAIN Q	3.3.3C
	STANDARD AREA (ADJUSTED)	3.3.3C
	STANDARD U-VALUE	3.3.3C Tables 3-20, 3-21
	STANDARD TEMP-FACTOR	3.3.3C
	STANDARD HEAT GAIN Q	3.3.3C
	ROOFS / CEILINGS	
	ASSEMBLY NAME	3.3.3C
	PROPOSED AREA	3.3.3C
	PROPOSED TEMP-FACTOR	3.3.3C Table 3-22 Standards Table 1-J
	PROPOSED HEAT CAPACITY	3.3.3C 3.1.2H
	PROPOSED U-VALUE	3.3.3C Appendix B
	TABLE VALUES?	3.3.3C Table B-7
	PROPOSED HEAT GAIN Q	3.3.3C
	STANDARD AREA (ADJUSTED)	3.3.3C
	STANDARD U-VALUE	3.3.3C Tables 3-20, 3-21
	STANDARD TEMP-FACTOR	3.3.3C
	STANDARD HEAT GAIN Q	3.3.3C
	FLOORS / SOFFITS	
	ASSEMBLY NAME	3.3.3C
	PROPOSED AREA	3.3.3C
	PROPOSED TEMP-FACTOR	3.3.3C Table 3-22 Standards Table 1-J

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 3 OF 5(cont.)

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OVERALL HEAT GAIN FROM CONDUCTION		
	FLOORS / SOFFITS	
	PROPOSED HEAT CAPACITY	3.3.3C 3.1.2H
	PROPOSED U-VALUE	3.3.3C Appendix B
	TABLE VALUES?	3.3.3C Table B-7
	PROPOSED HEAT GAIN Q	3.3.3C
	STANDARD AREA (ADJUSTED)	3.3.3C
	STANDARD U-VALUE	3.3.3C Tables 3-20, 3-21
	STANDARD TEMP-FACTOR	3.3.3C
	STANDARD HEAT GAIN Q	3.3.3C
	WINDOWS	
	ASSEMBLY NAME	3.3.3C
	PROPOSED AREA	3.3.3C
	PROPOSED TEMP-FACTOR	3.3.3C Table 3-22 Standards Table 1-J
	PROPOSED HEAT CAPACITY	3.3.3C 3.1.2H
	PROPOSED U-VALUE	3.3.3C Appendix B
	TABLE VALUES?	3.3.3C Table B-7
	PROPOSED HEAT GAIN Q	3.3.3C
	STANDARD AREA (ADJUSTED)	3.3.3C
	STANDARD U-VALUE	3.3.3C Tables 3-20, 3-21
	STANDARD TEMP-FACTOR	3.3.3C
	STANDARD HEAT GAIN Q	3.3.3C
	SKYLIGHTS	
	ASSEMBLY NAME	3.3.3C
	PROPOSED AREA	3.3.3C
	PROPOSED TEMP-FACTOR	3.3.3C Table 3-22 Standards Table 1-J
	PROPOSED HEAT CAPACITY	3.3.3C 3.1.2H
	PROPOSED U-VALUE	3.3.3C Appendix B
	TABLE VALUES?	3.3.3C Table B-7
	PROPOSED HEAT GAIN Q	3.3.3C
	STANDARD AREA (ADJUSTED)	3.3.3C

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 3 OF 5(cont.)

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OVERALL HEAT GAIN FROM CONDUCTION		
	STANDARD U-VALUE	3.3.3C Tables 3-20, 3-21
	STANDARD TEMP-FACTOR	3.3.3C
	STANDARD HEAT GAIN Q	3.3.3C

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 4 OF 5

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OVERALL HEAT GAIN FROM RADIATION		
	NORTH	
	WINDOW / SKYLIGHT NAME	3.3.3D
	WEIGHTING FACTOR	3.3.3D Table 3-23 Stds Table 1-K
	PROPOSED AREA	3.3.3D 3.1.2A
	PROPOSED SOLAR FACTOR	3.3.3D Table 3-23 Stds Table 1-J
	PROPOSED SHGC	3.3.3D
	OVERHANG	
	H	3.1.2J
	V	3.1.2J
	H/V	3.3.3D
	OHF	3.3.3D
	PROPOSED HEAT GAIN Q	3.3.3D
	STANDARD AREA	3.3.3D
	STANDARD RSHG OR SHGC	3.3.3D Tables 3-20 and 3-21
	STANDARD SOLAR FACTOR	3.3.3D Table 3-22 Stds Table 1-J
	STANDARD HEAT GAIN Q	3.3.3D
	EAST	
	WINDOW / SKYLIGHT NAME	3.3.3D
	WEIGHTING FACTOR	3.3.3D Table 3-23 Stds Table 1-K
	PROPOSED AREA	3.3.3D 3.1.2A
	PROPOSED SOLAR FACTOR	3.3.3D Table 3-23 Stds Table 1-J
	PROPOSED SHGC	3.3.3D
	OVERHANG	
	H	3.1.2J
	V	3.1.2J
	H/V	3.3.3D
	OHF	3.3.3D
	PROPOSED HEAT GAIN Q	3.3.3D
	STANDARD AREA	3.3.3D

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 4 OF 5(cont.)

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OVERALL HEAT GAIN FROM RADIATION		
	EAST	
	STANDARD RSHG OR SHGC	3.3.3D Tables 3-20 and 3-21
	STANDARD SOLAR FACTOR	3.3.3D Table 3-22 Stds Table 1-J
	STANDARD HEAT GAIN Q	3.3.3D
	SOUTH	
	WINDOW / SKYLIGHT NAME	3.3.3D
	WEIGHTING FACTOR	3.3.3D Table 3-23 Stds Table 1-K
	PROPOSED AREA	3.3.3D 3.1.2A
	PROPOSED SOLAR FACTOR	3.3.3D Table 3-23 Stds Table 1-J
	PROPOSED SHGC	3.3.3D
	OVERHANG	
	H	3.1.2J
	V	3.1.2J
	H/V	3.3.3D
	OHF	3.3.3D
	PROPOSED HEAT GAIN Q	3.3.3D
	STANDARD AREA	3.3.3D
	STANDARD RSHG OR SHGC	3.3.3D Tables 3-20 and 3-21
	STANDARD SOLAR FACTOR	3.3.3D Table 3-22 Stds Table 1-J
	STANDARD HEAT GAIN Q	3.3.3D
	WEST	
	WINDOW / SKYLIGHT NAME	3.3.3D
	WEIGHTING FACTOR	3.3.3D Table 3-23 Stds Table 1-K
	PROPOSED AREA	3.3.3D 3.1.2A
	PROPOSED SOLAR FACTOR	3.3.3D Table 3-23 Stds Table 1-J
	PROPOSED SHGC	3.3.3D
	OVERHANG	
	H	3.1.2J
	V	3.1.2J
	H/V	3.3.3D
	OHF	3.3.3D
	PROPOSED HEAT GAIN Q	3.3.3D

NONRESIDENTIAL PLAN CHECK GUIDE

FORM ENV-2: OVERALL ENVELOPE METHOD - PART 4 OF 5(cont.)

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
OVERALL HEAT GAIN FROM RADIATION		
	WEST	
	STANDARD AREA	3.3.3D
	STANDARD RSHG OR SHGC	3.3.3D Tables 3-20 and 3-21
	STANDARD SOLAR FACTOR	3.3.3D Table 3-22 Stds Table 1-J
	STANDARD HEAT GAIN Q	3.3.3D
	SKYLIGHTS	
	WINDOW / SKYLIGHT NAME	3.3.3D
	WEIGHTING FACTOR	3.3.3D Table 3-23 Stds Table 1-K
	PROPOSED AREA	3.3.3D 3.1.2A
	PROPOSED SOLAR FACTOR	3.3.3D Table 3-23 Stds Table 1-J
	PROPOSED SHGC	3.3.3D
	PROPOSED HEAT GAIN Q	3.3.3D
	STANDARD AREA	3.3.3D
	STANDARD RSHG OR SHGC	3.3.3D Tables 3-20 and 3-21
	STANDARD SOLAR FACTOR	3.3.3D Table 3-22 Stds Table 1-J
	STANDARD HEAT GAIN Q	3.3.3D

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FORM ENV-2: OVERALL ENVELOPE METHOD - PART 5 OF 5

Note: This form is for the Overall Envelope Method to determine that the proposed design's overall heat loss, based on the installed insulation and glazing performance, are at least as good as the standard heat gain.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
WINDOW AREA ADJUSTMENT CALCULATIONS		
	WALL NAME	From ENV-1 3.3.3E
	ORIENTATION See definition GROSS EXTERIOR WALL AREA	
	(Sum of Window Area, Door Area, and Exterior Wall Area)	3.1.2A 3.3.3E
	GROSS AREA	3.1.2A 3.3.3E
	DOOR AREA	3.1.2A 3.3.3E
	WINDOW ADJUSTMENT FACTOR	From Part 1 of 5 3.3.3E
	ADJUSTED WINDOW AREA(DXE)	3.2.3A 3.3.3E
	ADJUSTED WALL AREA (B-(F+C))	3.2.3A 3.3.3E
SKYLIGHT AREA ADJUSTMENT CALCULATIONS		
	ROOF NAME	From ENV-1 3.3.3E
	GROSS AREA See definition GROSS EXTERIOR ROOF AREA	
	(Sum of Skylight Area and the Exterior roof / ceiling Area)	3.1.2A 3.3.3E
	SKYLIGHT AREA	3.1.2A 3.3.3E
	SKYLIGHT ADJUSTMENT FACTOR	From Part 1 of 5 3.3.3E
	ADJUSTED SKYLIGHT AREA (CXD)	3.2.3A 3.3.3E
	ADJUSTED ROOF AREA (B-E)	3.2.3A 3.3.3E

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FORM ENV-3: PROPOSED METAL FRAME ASSEMBLY

Note: This form is used to determine the Assembly U-Value for metal framed wall assemblies as an alternative to using the Metal Wall U-Value found in Table B-2, Appendix B; or to determine the Assembly U-Value for a metal framed floor, ceiling, or soffit. Refer to 3.1.2 E for description of the use of Table B-2

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
COMPONENT DESCRIPTION		
	ASSEMBLY NAME	From ENV-1 3.3.4A
	ASSEMBLY TYPE Floor. Wall, Ceiling / Roof	3.3.4A
	FRAMING MATERIAL Metal	3.3.4A
	FRAMING SIZE Nominal dimension of framing members	3.3.4A
	FRAMING SPACING 16 or 24 inches on center	3.3.4A
	INSULATION R-VALUE	3.1.2B 3.3.4A
CONSTRUCTION COMPONENTS		
	DESCRIPTION Elements of the assembly including inside/outside surface air films	3.1.2C 3.1.2E 3.3.4B Table B-1 Appendix B
	OUTSIDE/INSIDE SURFACE AIR FILM	Table 3-1 3.3.4B
	SUBTOTAL Rc Combined R-Value of Cavity	3.3.4B
	METAL FRAMING FACTOR MFF	Table 3-5 3.3.4B
	INSULATION R- VALUE	3.1.2B 3.3.4B
	Rc x MFF R-Value	3.1.2E 3.3.4B
	INSULATING SHEATHING R-Value	MFG SPECS DIRECTORY 3.3.4B
	TOTAL R-Value Rt	3.1.2E 3.3.4B
	1/Rt Assembly U-Value Insert at Column D, ENV-2, Part 2	3.1.2E 3.3.4B

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FORM ENV-3: PROPOSED MASONRY ASSEMBLY

Note: This form is used to determine the Assembly U-Value for masonry wall assemblies as an alternate to using the Masonry Wall U-Value found in Table B-5 or B-6, Appendix B. Refer to 3.1.2F for description of the use of Table B-5 and B-6. As an alternate, it is permissible to use the method of transverse isothermal planes, ASHRAE Handbook, 1989, Fundamentals, Chapter 22 or the method described in Energy Calculations and Data, Concrete masonry Association of California and Nevada, 1986.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
COMPONENT DESCRIPTION		
	SKETCH OF ASSEMBLY	3.3.5A
	WALL ASSEMBLY NAME	From ENV-1 3.3.5A
	DESCRIPTION OF ASSEMBLY	3.3.5A
WALL R-VALUE, U-VALUE, AND HEAT CAPACITY		
	WALL UNIT THICKNESS Nominal Inches	3.3.5B
	MATERIAL TYPE	3.3.5B
	CORE TREATMENT (Grouted, Perlite, Etc.)	3.3.5B
	WALL R-VALUE Rw	Table B-5, B-6, Appendix B 3.3.5B
	WALL HEAT CAPACITY HC	Table B-5, B-6, Appendix B 3.3.5B
FURRING/INSULATION LAYER (INSIDE and/or OUTSIDE IF ANY)		
	FURRING FRAMING MATERIAL (Wood, Metal, Etc.)	3.1.2F 3.3.5C
	FURRING FRAMING SIZE Nominal Inches	3.1.2F 3.3.5C
	FURRING SPACE INSULATION Type	3.1.2F 3.3.5C
	R-VALUE	3.1.2B 3.3.5C
	EXTERIOR INSULATING LAYER	3.1.2F 3.3.5C
	R-VALUE	3.1.2B 3.3.5C
	FURRING ASSEMBLY EFFECTIVE	3.1.2F 3.3.5C
	R-VALUE	Table B-7 Appendix B 3.3.5C
	EXTERIOR INSULATING LAYER R-VALUE	MFG SPEC 3.3.5C
	INSULATING LAYER R-VALUE	3.3.5C
FURRING/INSULATION LAYER (INSIDE and/or OUTSIDE IF ANY)		
	INSULATION LAYER R-VALUE (Rf)	3.1.2F 3.3.5D
	WALL R-VALUE (Rw)	3.1.2F 3.3.5D
	WALL ASSEMBLY R-VALUE (Rf+Rw)=Rt	3.1.2F 3.3.5D
	WALL ASSEMBLY U-VALUE (1/Rt)	3.1.2F 3.3.5D
	Insert at Column D, ENV-2, Part 2	3.1.2F 3.3.5D

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FORM ENV-3: PROPOSED WOOD FRAME ASSEMBLY

Note: This form is used determine the Assembly U-Value for any construction assembly that is not a metal framed assembly or masonry wall assembly,or is not included in the tables in Appendix B. Refer to Section 3.1.2C for discussion of overall assembly U-Value.

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
COMPONENT DESCRIPTION		
	ASSEMBLY NAME	From ENV-1 3.3.6A
	ASSEMBLY TYPE Floor, Wall, or Ceiling/Roof	3.3.6A
	FRAMING MATERIAL Description of Framing Material	3.3.6A
	FRAMING SIZE Nominal Size of Framing Material	3.3.6A
	FRAMING PERCENTAGE	3.1.2D Table 3-3 3.3.6A
CONSTRUCTION COMPONENTS		
	DESCRIPTION Elements of the assembly including inside/outside surface air films	3.1.2C 3.1.2D 3.3.6B
	CAVITY R-VALUE	Table B-1 3.3.6B
	WOOD FRAME R-VALUE (Rf)	3.3.6B
	HEAT CAPACITY (HC)	3.3.6B
	WALL HEIGHT	3.3.6B
	SPECIFIC HEAT	3.3.6B
	HC (A x B)	3.3.6B
	ASSEMBLY U-VALUE	3.3.6B
	Rf R-Value of Frame Section	3.1.2D 3.3.6B
	TOTAL HC Heat Capacity of Construction Assembly	3.1.2H 3.3.6B
	(1/Rc x [1-(Fr%/100)]) + (1/Rf x Fr%/100) =	3.1.2C 3.3.6B
	ASSEMBLY U-VALUE, where:	3.1.2D 3.3.6B
	Rc = Total R-Value of framing cavity	
	Fr% = Framing Percentage	
	Rf = Total R-Value at wood frame	

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FORM MECH-1: CERTIFICATE OF COMPLIANCE

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
GENERAL		
	DATE: Verify version of Energy Efficiency Standards that apply	2.1.1 Table 1-1 4.3.1A
GENERAL INFORMATION		
	BUILDING CONDITIONED FLOOR AREA	2.1.2
	BUILDING TYPE: Verify Occupancy Group(s) and, if Residential, determine if Nonres or res apply.	2.1.1A 2.1.2B 4.3.1B
	PHASE OF CONSTRUCTION	
	NEW CONSTRUCTION	2.2.6
	ADDITION	2.2.5
	ALTERATION	2.2.4
	METHOD OF COMPLIANCE	4.1.1
	PRESCRIPTIVE	4.1.1 4.2.2
	PERFORMANCE	4.1.1 4.2.3
	PROOF OF ENVELOPE COMPLIANCE	
	PREVIOUS ENVELOPE PERMIT	
	ENVELOPE COMPLIANCE ATTACHED	
STATEMENT OF COMPLIANCE		
	CIVIL ENGINEER, MECHANICAL ENGINEER, ELECTRICAL ENGINEER, OR ARCHITECT	4.3.1C
	CONTRACTOR DESIGNING WORK CONTRACTED TO PERFORM	4.3.1C
	OTHERWISE EXEMPT: APPLICANT TO STATE REASON FOR EXEMPTION.	4.3.1C
MECHANICAL MANDATORY MEASURES		
	MANDATORY MEASURES	4.1.1 4.2.1 4.3.1D

FORM MECH-1: CERTIFICATE OF COMPLIANCE(cont.)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
SYSTEM FEATURES		
	TIME CONTROLS	4.2.1G 4.2.1H 4.3.1E
	SETBACK CONTROLS	4.2.1G 4.2.1H 4.3.1E
	ISOLATION ZONES	4.2.1G 4.2.1H 4.3.1E
	HEAT PUMP THERMOSTAT	4.2.4A.9 4.2.4B.10 4.3.1E
	ELECTRIC HEAT	4.2.2H 4.2.4A.6 4.3.1E
	FAN CONTROL	4.2.2C PLANS 4.3.1E
	VAV MINIMUM POSITION CONTROL	4.2.4B 4.2.4C 4.2.4D 4.2.4E 4.3.1E PLANS
	SIMULTANEOUS HEAT / COOL	4.2.2D.3 4.3.1E
	HEAT SUPPLY RESET	4.2.4D.10 4.3.1E
	COOL SUPPLY RESET	4.2.4D.10 4.3.1E
	VENTILATION	4.2.1F 4.3.1E
	OUTDOOR DAMPER CONTROL	4.2.1F 4.3.2D.12 4.3.1E
	ECONOMIZER TYPE	4.1.2G 4.3.1E
	DESIGN AIR CFM	4.2.1F 4.3.1E
	HEATING EQUIPMENT	4.3.1E
	TYPE	4.2.1 4.3.1E
	HIGH EFFICIENCY	4.3.1E
	MAKE AND MODEL NUMBER	4.3.1E
	COOLING EQUIPMENT TYPE	4.3.1E
	PIPE INSULATION REQUIRED?	4.3.1E
	PIPE TYPE	4.2.1I
	HEATING DUCT LOCATION	4.3.1E
	COOLING DUCT LOCATION	4.3.1E
	DUCT TAPE ALLOWED?	4.2.1J

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FORM MECH-2: MECHANICAL EQUIPMENT SUMMARY (PART 1 OF 2)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
CHILLER AND TOWER SUMMARY		
	EQUIPMENT NAME	4.3.2A
	EQUIPMENT TYPE	4.3.2A
	QTY	4.3.2A
	EFFICIENCY	Table B-9
	TONS	4.3.2A
	PUMPS TOTAL QTY	4.3.2A
	PUMPS GPM	4.3.2A
	PUMPS BHP	4.3.2A
	PUMPS MOTOR EFF.	Table B-8
	PUMPS DRIVE EFF.	4.3.2A
	PUMPS PUMP CONTROL	4.3.2A
DHW / BOILER SUMMARY		
	SYSTEM NAME	4.3.2B
	SYSTEM TYPE	4.3.2B
	DISTRIBUTION TYPE	4.3.2B
	QTY.	4.3.2B
	RATED INPUT	4.3.2B
	VOL.(GALS.)	4.3.2B
	ENERGY FACTOR OR RECOVERY EFFICIENCY	4.3.2B
	STANDBY LOSS OR PILOT	4.3.2B
	TANK INSUL.	4.3.2B
CENTRAL SYSTEM RATINGS		
	SYSTEM NAME	4.3.2C
	SYSTEM TYPE	4.3.2C
	QTY.	4.3.2C
	HEATING OUTPUT	4.3.2C
	HEATING AUX KW	4.3.2C
	HEATING EFFICIENCY	Table B-9
	COOLING OUTPUT	4.3.2C
	COOLING SENSIBLE	4.3.2C
	COOLING EFFICIENCY	Table B-9
	COOLING ECONOMIZER TYPE	4.3.2C

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FORM MECH-2: MECHANICAL EQUIPMENT SUMMARY (PART 1 OF 2) (cont.)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
CENTRAL FAN SUMMARY		
	SYSTEM NAME	4.3.2D
	FAN TYPE	4.3.2D
	MOTOR LOCATION	4.3.2D
	SUPPLY FAN CFM	4.3.2D
	SUPPLY FAN BHP	4.2.2C
	SUPPLY FAN MOTOR EFF.	Table B-8
	SUPPLY FAN DRIVE EFF.	4.3.2D
	RETURN FAN CFM	4.3.2D
	RETURN FAN BHP	4.2.2C
	RETURN FAN MOTOR EFF.	Table B-8
	RETURN FAN DRIVE EFF.	4.3.2D

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FORM MECH-2: MECHANICAL EQUIPMENT SUMMARY (PART 2 OF 2)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
VAV SUMMARY		
	ZONE NAME	4.3.2E
	VAV SYSTEM TYPE	4.3.2E
	VAV QTY.	4.3.2E
	VAV MIN. CFM RATIO	4.3.2E
	VAV TYPE	4.3.2E
	VAV DELTA T	4.3.2E
	FAN FLOW RATIO	4.3.2E
	FAN CFM	4.3.2E
	FAN BHP	4.2.2C
	FAN MOTOR EFF.	Table B-8
	FAN DRIVE EFF.	4.3.2E
	BASEBOARD TYPE	4.3.2E
	BASEBOARD OUTPUT	4.3.2E
EXHAUST FAN SUMMARY		
	EXHAUST FAN SUMMARY	4.3.2F
	ROOM NAME	4.3.2F
	QTY.	4.3.2F
	CFM	4.3.2F
	BHP	4.2.2C
	MOTOR EFF.	Table B-8
	DRIVE EFF	4.3.2F

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FORM MECH-3: MECHANICAL VENTILATION

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
VENTILATION CALCULATIONS		
	ZONE / SYSTEM	PLANS / SPECS
	AREA BASIS	
	COND. AREA	PLANS / SPECS
	CFM / SF	ASHRAE STD 62-1989
	MIN CFM	CALCULATED
	OCCUPANCY BASIS	
	NO. OF PEOPLE	PLANS / SPECS
	CFM / PERSON	4.2.1F
	MIN CFM	CALCULATED
	REQ'D O.A.	4.3.3A
	DESIGN OUTDOOR AIR CFM	4.3.3A
	VAV MINIMUM CFM	4.3.3A
	LARGEST MIN CFM	4.3.4
	DESIGN MIN CFM	4.3.4
	TRANSFER AIR	CALCULATED 4.3.4

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FORM MECH-4: MECHANICAL SIZING AND FAN POWER

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
SIZING AND EQUIPMENT SELECTION		
	DESIGN CONDITIONS	ASHRAE
	OUTDOOR , DRY BULB TEMPERATURE	4.2.2B
	OUTDOOR , WET BULB TEMPERATURE	4.3.4A
	INDOOR, DRY BULB TEMPERATURE	APPENDIX C
	SIZING	4.2.2A 4.3.4A
	DESIGN OUTDOOR AIR	4.3.4A APPENDIX C
	ENVELOPE LOAD	4.2.2B.6 4.3.4.A
	LIGHTING	4.2.2.B.7 4.3.4A
	PEOPLE	Form MECH-4
	MISC. EQUIPMENT	ASHRAE STDS 4.3.4A
	OTHER	ASHRAE STDS 4.3.4A
	OTHER LOADS/SAFETY FACTOR	4.3.4A
	MAXIMUM ADJUSTED LOAD	4.3.4A
	INSTALLED EQUIPMENT CAPACITY	MANUF. DATA 4.3.4A
FAN POWER CONSUMPTION		
	FAN DESCRIPTION	4.2.2C 4.3.4B
	DESIGN BRAKE HORSEPOWER	MANUF. DATA
	EFFICIENCY	PLANS/SPECS 4.3.4B
	NUMBER OF FANS	PLANS/SPECS 4.3.4B
	PEAK WATTS	4.3.4B
	CFM	PLANS/SPECS 4.3.4B
	TOTALS	4.3.4B
	TOTAL FAN SYSTEM POWER DEMAND	4.3.4B

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FORM LTG-1: CERTIFICATE OF COMPLIANCE (PART 1 OF 2)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
GENERAL		
	DATE	2.1.1 Table 1-I 5.3.1A
GENERAL INFORMATION		
	BUILDING CONDITIONED FLOOR AREA	2.1.2A 5.3.1A
	CLIMATE ZONE	APPENDIX C 5.3.1A
	BUILDING TYPE: Verify Occupancy Group(s) and if Residential determine whether NonRes or Res Standards apply.	2.1.1 2.1.2B 5.3.1A
	PHASE OF CONSTRUCTION	
	NEW CONSTRUCTION	2.2.2 5.3.1A
	ADDITION	2.2.5 5.3.1A
	ALTERATION	2.2.4 5.3.1A
	UNCONDITIONED	2.2.1 5.3.1A
	METHOD OF COMPLIANCE	5.1.1 5.3.1A
	AREA CATEGORY	5.2.2B 5.3.1A
	TAILORED	5.2.2C 5.3.1A
	PERFORMANCE	5.2.3 5.3.1A
STATEMENT OF COMPLIANCE		
	CIVIL ENGINEER, MECHANICAL ENGINEER, ELECTRICAL ENGINEER, OR ARCHITECT.	5.3.1A B&P CODE
	CONTRACTOR DESIGNING WORK CONTRACTED TO PERFORM	
	OTHERWISE EXEMPT: APPLICANT TO STATE REASON FOR EXEMPTION	

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FORM LTG-1: CERTIFICATE OF COMPLIANCE (PART 1 OF 2) (cont.)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
LIGHTING MANDATORY MEASURES		
	CONTROL REQUIREMENTS	5.2.1A 5.3.1A
	AREA REQUIREMENTS	5.2.1A 5.3.1A
	ROOM SWITCHING	5.2.1A 5.3.1A
	ACCESSIBILITY	5.2.1A 5.3.1A
	PUBLIC AREAS	5.2.1A 5.3.1A
	SECURITY OR EMERGENCY	5.2.1A 5.3.1A
	OTHER DEVICES	5.2.1A 5.3.1A
	BI-LEVEL SWITCHING	5.2.1B 5.3.1A
	DAYLIT AREAS	5.2.1C 5.3.1A
	EFFECTIVE APERTURE	5.2.1C 5.3.1A
	VISIBLE LIGHT TRANSMITTANCE (VLT)	5.2.1C 5.3.1A
	WELL INDEX	5.2.1C 5.3.1A
	DISPLAY LIGHTING	5.2.1E 5.3.1A
	SHUT-OFF CONTROLS	5.2.1D 5.3.1A
	EXTERIOR LIGHTS	5.2.1F 5.3.1A
	TANDEM WIRING	5.2.1G 5.3.1A
	HIGH RISE RESIDENTIAL AND HOTEL / MOTEL GUEST ROOMS	5.2.1J 5.3.1A
	KITCHEN LIGHTING	5.2.1J 5.3.1A
	BATHROOM LIGHTING	5.2.1J 5.3.1A
	GENERAL	5.2.1J 5.3.1A
	CERTIFIED AUTOMATIC LIGHTING CONTROL DEVICES	5.2.1H 5.3.1A
	AUTOMATIC TIME SWITCHES (ATS)	5.2.1H 5.3.1A
	OCCUPANCY SENSORS	5.2.1H 5.3.1A
	AUTOMATIC DAYLIGHT CONTROLS	5.2.1H 5.3.1A
	LUMEN MAINTENANCE CONTROL	5.2.1H 5.3.1A
	INTERIOR PHOTOCELL	5.2.1H 5.3.1A
	CERTIFIED BALLASTS AND LUMINAIRES	5.2.1I 5.3.1A

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FORM LTG-1: CERTIFICATE OF COMPLIANCE (PART 2 OF 2)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
INSTALLED LIGHTING SCHEDULE		
	DESCRIPTION: To identify for attached forms	Same as LTG-1 5.3.1B
	LAMPS	5.3.1B
	TYPE description	5.3.1B
	#	5.3.1B
	WATTS PER LAMP	5.3.1B 5.2.4
	BALLAST	5.3.1B
	TYPE description	5.3.1B
	#	5.3.1B
	LUMINAIRE	5.3.1B
	#	5.3.1B
	WATTS	5.3.1B
	TOTAL WATTS	5.3.1B
	I=INCANDESCENT	5.3.1B
	F=FLOURESCENT	5.3.1B
	H=HIGH INTENSITY DISCHARGE	5.3.1B
	BALLASTS	5.3.1B
	S=STANDARD MAGNETIC	Directory of Certified Ballasts
	E=ELECTRONIC HIGH FREQUENCY	Supporting documents required
	O=OTHER	Supporting documents required
MANDATORY AUTOMATIC CONTROLS		
	CONTROL LOCATION: To identify for attachment forms	5.2.1A 5.3.1B
	CONTROL IDENTIFICATION	5.2.1A 5.3.1B
	CONTROL TYPE	5.2.1A 5.3.1B
	BUILDING SHUT OFF	5.2.1A 5.3.1B
	INDIVIDUAL ROOM CONTROL	5.2.1A 5.3.1B
	CONTROL OF EXTERIOR LIGHTS	5.2.1A 5.3.1B
	SPACE CONTROLLED	5.2.1A 5.3.1B

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FORM LTG-2: LIGHTING COMPLIANCE

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
ACTUAL LIGHTING POWER		
	LUMINAIRE NAMES	From LTG-1
	DESCRIPTION	5.3.2A
	NUMBER OF LUMINAIRES	5.3.2A
	WATTS PER LUMINAIRE	5.3.2A
	CEC DEFAULT:	CEC Directory
	Y=Data is a standard value from data references. N= Manufacturer's data sheets are LESS CONTROL CREDITS: Form LTG-3 is required.	
	TOTAL WATTS	5.3.2A
	ADJUSTED ACTUAL WATTS Must be equal to or less than the allowed Watts.	5.2.4A 5.2.4B 5.3.2A
ALLOWED LIGHTING POWER (Choose one Method)		
	COMPLETE BUILDING METHOD	5.2.2A 5.3.2B
	BUILDING CATEGORY	Table 5-3 5.3.2B
	WATTS PER SF	Table 5-3 5.3.2B
	COMPLETE BUILDING AREA	Form LTG-1 5.3.2B
	ALLOWED WATTS	watts/sf x BLDG AREA 5.3.2B
	AREA CATEGORY METHOD	5.2.2B 5.3.2B
	AREA CATEGORY	Table 5-4 5.3.2B
	WATTS PER SF	5.3.2B
	ALLOWED LIGHTING POWER	Table 5-4 5.3.2B
	AREA (SF)	5.2.2B PLANS 5.3.2B
	ALLOWED WATTS	watts/sf x AREA SF 5.3.2B
	TOTAL AREA	Form LTG-1 5.3.2B
	TOTAL WATTS	ALLOWED WATTS 5.3.2B
	TAILORED METHOD	5.2.2C 5.3.2B
	TAILORED METHOD TOTAL ALLOWED WATTS	5.3.2B

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FORM LTG-3: LIGHTING CONTROLS CREDIT WORKSHEET

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
WORKSHEET		
	Used for credit for lighting controls not required as mandatory measures.	
	ROOM # ZONE ID	Form LTG-1 5.3.3
	LIGHTING CONTROL DESCRIPTION	Form LTG-1 5.3.3
	OCCUPANCY SENSOR	5.1.2D 5.3.3
	DIMMING SYSTEM	5.1.2D 5.3.3
	LUMEN MAINTENANCE CONTROLS	5.1.2D 5.3.3
	TUNING	5.1.2D 5.3.3
	AUTOMATIC TIME SWITCH CONTROL DEVICE	5.1.2D 5.3.3
	COMBINED CONTROLS	5.1.2D 5.3.3
	PLANS REF. Location for details on plans.	5.3.3
	ROOM AREA SF Square footage of room or area included in control devices.	5.3.3 5.3.3
	DAYLIGHTING To be completed for daylight controls	5.3.3
	ROOM RATIO	5.3.3
	WINDOW WALL RATIO	5.2.1C 5.3.3
	SKYLIGHT / CEILING	5.2.1C 5.3.3
	GLAZING VLT	5.2.1C 5.3.3
	WATTS OF CONTROL LIGHTING Connected Watts of fixtures under control	5.3.3
	LIGHTING ADJUSTMENT FACTOR	Table 5-10 5.3.3
	CONTROL CREDIT WATTS	(Col G x Col H) 5.3.3
	BUILDING TOTAL To be entered on the LTG-2 "Less Control Credits"	5.3.3

NONRESIDENTIAL PLAN CHECK GUIDE

FORM LTG-4: TAILORED LPD SUMMARY AND WORKSHEET(part 1 of 3)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
TAILORED LPD SUMMARY		
	WATTS FOR ILLUMINANCE CATEGORIES A-D	5.2.2C 5.3.4A
	WATTS FOR ILLUMINANCE CATEGORIES E-I	Appendix B 5.3.4A
	WATTS FOR DISPLAY LIGHTING	5.2.2C 5.3.4A
	TOTAL ALLOWED WATTS	5.2.2C 5.3.4A
TAILORED LPD - ILLUMINANCE CATEGORIES A,B,C, AND D		
	ROOM NUMBER	PLANS 5.3.4A
	TASK / ACTIVITY	5.2.2C 5.3.4A
	IES ILLUM. CATEGORY	IES Handbook (Appendix B) 5.3.4A
	ROOM CAVITY RATIO	5.2.2C 5.3.4A
	FLOOR AREA	PLANS
	ALLOWED LPD	Table 5-7 5.3.4A
	ALLOWED WATTS	To Tailored LPD Summary Line 1

NONRESIDENTIAL PLAN CHECK GUIDE

FORM LTG-4: TAILORED LPD SUMMARY AND WORKSHEET (part 2 of 3)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
TAILORED LPD - ILLUMINANCE CATEGORIES E,F,G,H,I, AND GROSS SALES		
Note: Areas adjacent to tasks of Categories F,G,H, and I must be assigned a category between A and D.	TASK / ACTIVITY	5.2.2C 5.3.4B
	ILLUMINANCE CATEGORY	IES Handbook (Appendix B) 5.3.4B
	RCR (If E) Room Cavity Ratio	5.2.2C 5.3.4B
	NOTES: Note Mounting Height or Throw Distance (Gross Sales)	5.2.2C 5.3.4B
	ALLOWED WATTS	5.2.2C 5.3.4B
	TASK AREA (sf)	PLANS 5.3.4B
	ALLOWED LPD	Table 5-7, 5-8 5.3.4B
	ALLOTTED WATTS	Task Areas Allotted LPD 5.3.4B
	DESIGN WATTS	5.3.4B
	LUMIN CODE	Form LTG-1 5.3.4B
	QTY (Number of Luminaries)	Form LTG-1 5.3.4B
	WATTS / LUMIN.	CEC Directory Table B-11 5.3.4B
	DESIGN WATTS	Qty. x watts / lumen
	ALLOWED WATTS The Smaller of Allotted Watts or Design Watts	To Tailored LPD Summary Line 2
TAILORED LPD - PUBLIC AREA DISPLAYS		
Note: Refer to definition "DISPLAY", "PUBLIC AREA", 5.2.2C.	TASK / ACTIVITY	5.2.2C 5.3.4B
	THROW DIST.	5.2.2C 5.3.4B
	MOUNTING HEIGHT	5.2.2C 5.3.4B
	ALLOTTED WATTS	
	TASK AREA (sf)	PLANS
	ALLOWED LPD	Table 5-7 5.3.4B
	ALLOTTED WATTS	Task Area x Allowed LPD 5.3.4B
	DESIGN WATTS	
	LUMEN CODE	Form LTG-1 5.3.4B
	QTY (Number of luminaires)	Form LTG-1 5.3.4B
	WATTS / LUMIN	Form LTG-1 5.3.4B Table B-11
	DESIGN WATTS	Qty. x watts / lamp
	ALLOWED WATTS (The Smaller of Allotted Watts or Design)	To Tailored LPD Summary Line 3
	MAXIMUM AREA PUBLIC DISPLAYS=10% of Public Display Area	5.2.2C 5.3.4B

NONRESIDENTIAL PLAN CHECK GUIDE

FORM LTG-4: TAILORED LPD SUMMARY AND WORKSHEET (part 3 of 3)

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
TAILORED LPD - SALES FEATURE FLOOR DISPLAYS		
Note: Refer to definition	TASK / ACTIVITY	PLANS 5.3.4C
"DISPLAY", "SALES FEATURE	THROW DIST.	5.2.2C 5.3.4C
FLOOR", 5.2.2C	MOUNTING HEIGHT	5.2.2C 5.3.4C
	ALLOTTED WATTS	
	TASK AREA (SF)	PLANS
	CAT. G LPD	Table 5-8 5.3.4C
	ALLOTTED WATTS (D x E)	Task Area x CAT.G LPD 5.3.4C
	DESIGN WATTS	
	LUMEN CODE	Form LTG-1 5.3.4C
	QTY.	Form LTG-1 5.3.4C
	WATTS / LUMEN	Form LTG-1 5.3.4C Table B-11
	DESIGN WATTS (H x I)	Qty. x watts / lamp
	ALLOWED WATTS (The smaller of Allotted watts or Design watts)	To Tailored LPD Summary Line 3
	TOTAL AREA FLOOR DISPLAYS	PLANS
	GROSS SALES FLOOR AREA. Maximum area floor displays= 10% of the gross sales floor area.	5.2.2C 5.3.4C
TAILORED LPD - SALES FEATURE WALL DISPLAYS		
	TASK / ACTIVITY	PLANS 5.3.4C
	THROW DIST.	5.2.2C 5.3.4C
	ALLOTTED WATTS	5.2.2C 5.3.4C
	TASK AREA (SF)	PLANS
	ALLOTTED WATTS (C x D)	Task Area x Allowed LPD 5.3.4C
	ALLOWED LPD	Table 5-7 5.3.4C
	LUMEN CODE	Form LTG-1 5.3.4C
	QUANTITY (No. of Lamps)	Form LTG-1 5.3.4C
	WATTS / LUMEN.	Form LTG-1 5.3.4C Table B-11
	DESIGN WATTS (G x H)	Qty. x Watts / lamp
	ALLOWED WATTS (The Smaller of Allotted watts or Design watts)	5.3.4C
	TOTAL AREA WALL DISPLAYS	PLANS
	GROSS SALES WALL AREA. Maximum area wall displays= 10% of gross sales floor area.	

NONRESIDENTIAL PLAN CHECK GUIDE

FORM LTG-5: ROOM CAVITY RATIO WORKSHEET

CATEGORY	CONSERVATION MEASURE	*REFERENCE*
RECTANGULAR SPACES		
	ROOM NUMBER	5.3.5B
	TASK / ACTIVITY DESCRIPTION	5.3.5B
	ROOM LENGTH (L)	5.3.5B
	ROOM WIDTH (W)	5.3.5B
	ROOM HEIGHT (H)	5.3.5B
	ROOM CAVITY RATIO = [5 x H x(L+W) / (L x W)]	5.3.5B
NON-RECTANGULAR SPACES		
	ROOM NUMBER	5.3.5C
	TASK / ACTIVITY DESCRIPTION	5.3.5C
	ROOM AREA (A)	5.3.5C
	ROOM PERIMETER (P)	5.3.5C
	ROOM CAVITY HEIGHT (H)	5.3.5C
	ROOM CAVITY RATIO = [(2.5 x H x P) / A]	5.3.5C

NONRESIDENTIAL BUILDING ENERGY EFFICIENCY STANDARDS

INSPECTION CHECKLIST

FIELD INSPECTION GUIDELINE

NOTE: The 1998 Energy Efficiency Standards for Nonresidential Buildings apply to buildings of Occupancy Groups A, B, E, F, H, M, and S; to High Rise Residential occupancy; and to Hotel/Motel Guest Rooms. The Energy efficiency Standards govern Envelope, Mechanical Systems, and Lighting Systems.

FOUNDATION INSPECTION

CATEGORY	*FEATURE*	*CONSERVATION MEASURE*	*REFERENCE*
ORIENTATION			PLANS
STRUCTURAL:			
	BUILDING DIMENSIONS	CONDITIONED FLOOR AREA	ENV-1 GENERAL INFO
	SLAB EDGE/BASEMENT OR FOUNDATION	CERTIFIED INSULATION MATERIALS	MANDATORY MEASURE
	FOUNDATION WALL	U-VALUE OF INSULATION	ENV-1 OPAQUE
	MASS WALLS	HEAT CAPACITY	ENV-2 OPAQUE
MECHANICAL:			
	BUILDING DIMENSIONS	CONDITIONED FLOOR AREA	MECH-1 GENERAL INFO
LIGHTING:			
	BUILDING DIMENSIONS	CONDITIONED FLOOR AREA	LTG-1 GENERAL INFO

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CONCRETE SLAB OR UNDER-FLOOR INSPECTION

CATEGORY	*FEATURE*	*CONSERVATION MEASURE*	*REFERENCE*
STRUCTURAL:			
	SLAB-EDGE/UNDER FLOOR	CERTIFIED INSULATION	MANDATORY MEASURES
	INSULATION	U-VALUE OF INSULATION	ENV-1 OPAQUE
		MATERIALS	
	FLOOR MASS	MATERIALS HEAT CAPACITY	ENV-2 OPAQUE
MECHANICAL:			
	DUCT/PIPING	LOCATION	MECH-1 PART 2
		TYPE	MECH-1 PART 2
		INSULATION R-VALUE	MECH-1 PART 2
		DUCT TAPE ALLOWED?	MECH-1 PART 2
LIGHTING:			
	CONDUIT/RACEWAY	CONTROL REQUIREMENTS	MANDATORY MEASURE
		Area requirements	
		Room switching	
		Accessibility	
		Other devices	
		Bi-level reduction illumination	
		Exterior lights	
		Display lighting	
		Shut-off controls	
		Display lighting	
		MANDATORY AUTOMATIC CONTROLS	LTG-1 PART 2
		CONTROLS FOR CREDIT	LTG-3

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FRAME INSPECTION

CATEGORY	*FEATURE*	*CONSERVATION MEASURE*	*REFERENCE*
STRUCTURAL:			
	FENESTRATION	CERTIFICATION	MANDATORY MEASURE
		ROUGH-IN DIMENSIONS	PLANS
		ORIENTATION	PLANS
		EXTERIOR OVERHANG	ENV-1 EXTERIOR SHADING
	EXTERIOR DOORS	CAULKING	MANDATORY MEASURE
		WEATHER-STRIP	MANDATORY MEASURE
	WINDOWS	MANUFACTURED	
		Label	MANDATORY MEASURE
		U-value	ENV-1 FENESTRATION
		Solar Heat Gain Coefficient	ENV-1 FENESTRATION
		Caulking	MANDATORY MEASURE
		SITE CONSTRUCTED	
		Solar Heat Gain Coefficient	ENV-1 FENESTRATION
		Caulking	MANDATORY MEASURE
		Weather-stripping	MANDATORY MEASURE
	SKYLIGHTS	MANUFACTURED	
		Label	MANDATORY MEASURE
		U-value	ENV-1 FENESTRATION
		Solar Heat Gain Coefficient	ENV-1 FENESTRATION
		Caulking	MANDATORY MEASURE
		SITE CONSTRUCTED	
		Solar Heat Gain Coefficient	ENV-1 FENESTRATION
		Caulking	MANDATORY MEASURE
		Weather-stripping	MANDATORY MEASURE
	EXTERIOR WALLS/DEMISING	CONSTRUCTION TYPE	ENV-1 OPAQUE
	PARTITIONS	MASS/HEAT CAPACITY	ENV-2 OPAQUE
	ROOF/CEILING	CONSTRUCTION TYPE	ENV-1 OPAQUE
	ROOF/CEILING	CONSTRUCTION TYPE	ENV-1 OPAQUE

FRAME INSPECTION (CONTINUED)

CATEGORY	*FEATURE*	*CONSERVATION MEASURE*	*REFERENCE*
STRUCTURAL (CONTINUED):			
	FLOOR/SOFFIT	CONSTRUCTION TYPE	ENV-1 OPAQUE
MECHANICAL:			
	DUCT/PIPING	LOCATION	MECH-1 PART 2
		TYPE	MECH-1 PART 2
		INSULATION R-VALUE	MECH-1 PART 2
		DUCT TAPE ALLOWED	MECH-1 PART 2
	CONTROLS (WIRING FOR)	NUMBER OF SYSTEMS/ZONES	MECH-1 PART 2
		THERMOSTAT/TIME CONTROLS	MECH-1 PART 2
		PER ZONE	
LIGHTING:			
	CONDUIT/RACEWAY	CONTROL REQUIREMENTS	MANDATORY MEASURE
		Area requirements	
		Room switching	
		Accessibility	
		Other devices	
		Bi-level reduction illumination	
		Daylight areas	
		Display lighting	
		Shut-off controls	
		Exterior lights	
		MANDATORY AUTOMATIC CONTROLS	LTG-1 PART 2
		Building shut-off	
		Individual room control	
		Control of exterior lights	
		TANDEM WIRING	
		One or three lamp luminaries	MANDATORY MEASURE
		CONTROLS FOR CREDIT	LTG-3
		Occupancy sensor	
		Dimming switch	
		Lumen maintenance controls	
		Tuning	
		Automatic time switch control	
		Combined controls	

NONRESIDENTIAL BUILDING ENERGY EFFICIENCY STANDARDS

INSPECTION CHECKLIST

FIELD INSPECTION GUIDELINE

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INSULATION INSPECTION

CATEGORY	*FEATURE*	*CONSERVATION MEASURE*	*REFERENCE*
STRUCTURAL:			
	EXTERIOR WALLS/	CONSTRUCTION TYPE	ENV-1 OPAQUE
	DEMISING PARTITIONS	MASS/HEAT CAPACITY	ENV-2 OPAQUE
		INSULATION R-VALUE	ENV-2 OPAQUE
		CERTIFIED INSULATION MATERIALS	MANDATORY MEASURES
	ROOF/CEILING	CONSTRUCTION TYPE	ENV-1 OPAQUE
		INSULATION R-VALUE	ENV-2 OPAQUE
		CERTIFIED INSULATION MATERIALS	MANDATORY MEASURES
	FLOOR/SOFFIT	CONSTRUCTION TYPE	ENV-1 OPAQUE
		INSULATION R-VALUE	ENV-2 OPAQUE
		CERTIFIED INSULATION MATERIALS	MANDATORY MEASURES

NONRESIDENTIAL BUILDING ENERGY EFFICIENCY STANDARDS

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FINAL INSPECTION

CATEGORY	*FEATURE*	*CONSERVATION MEASURE*	*REFERENCE*
MECHANICAL:			
	SYSTEM TYPE	HEATING - MAKE/MODEL	MECH-1 SYSTEM FEATURES
		COOLING - MAKE/MODEL	MECH-1 SYSTEM FEATURES
		VENTILATION - NATURAL/MECHANICAL	MECH-1 SYSTEM FEATURES
		ECONOMIZER	MECH-1 SYSTEM FEATURES
	CONTROLS	NUMBER OF SYSTEMS/ZONES	MECH-1 PART 2
		THERMOSTAT/TIME HEATPUMP	MECH-1 PART 2
		CONTROLS PER ISOLATION ZONE	MECH-1 PART 2
LIGHTING:			
	CONTROL	AREA REQUIREMENTS	MANDATORY MEASURE
		Room switching	
		Control or occupancy sensor in each area	
		Accessibility	
		Control within sight of the controlled area	
		Other devices	
		Special devices or overrides	
		BI-LEVEL REDUCTION ILLUMINATION	MANDATORY MEASURE
		> 100sf and > 1.2 Watts/sf	
		DAYLIT AREAS	MANDATORY MEASURE
		>250sf and windows or skylights	
		Separate switching	
		DISPLAY LIGHTING	MANDATORY MEASURE
		Feature display in retail store	
		Separate switching	
		SHUT-OFF CONTROLS	MANDATORY MEASURE
		>5,000sf with automatic time switch	
		EXTERIOR LIGHTS	MANDATORY MEASURE
		Photocell or automatic time switch	

FINAL INSPECTION (CONTINUED)

CATEGORY	*FEATURE*	*CONSERVATION MEASURE*	*REFERENCE*
LIGHTING (CONTINUED)			
	TANDEM WIREING	ONE OR THREE LUMINAIRES	MANDATORY MEASURE
	MANDATORY AUTOMATIC		LTG-1
	BUILDING SHUT-OFF CONTROLS		
	CONTROLS FOR CREDIT	OCCUPANCY SENSOR	LTG-3
		Time delay	
		DIMMING SYSTEM	LTG-3
		Uniform reduction to 1/2	
		Flicker free operation	
		Time delay	
		LUMIN MAINTENANCE CONTROLS	LTG-3
		Alarm	
		TUNING	LTG-3
		AUTOMATIC TIME SWITCH CONTROL DEVICE	LTG-3
		Separate programs for weekend/holidays	
		Override switching	
		Ten hour backup power	
		COMBINED CONTROLS	LTG-3
	LUMINAIRES	TYPE	LTG-1
		Incandescent	
		Florescent	
		High-intensity discharge	
		NUMBER OF LAMPS	LTG-1
		WATTS PER LAMP	LTG-1
		BALLASTS	LTG-1
		Standard magnetic	
		Electronic high frequency	
		Other	
		Number per luminaire	